

# PERTH'S CAUSEWAY BRIDGES - A STORY OF THREE CROSSINGS -

## HISTORY OF THE CAUSEWAY SITE

Local indigenous people had been crossing the river on foot for thousands of years before the first recorded European visit when sailors from Dutch navigator Willem de Vlamingh's ships rowed up the river in January 1697, giving the name 'Swan' to the river, because of the prevalence of black swans. Just over 100 years later, in 1801, the French expedition, under the command of Nicolas Baudin, visited Western Australia. Sailors from the Naturaliste ventured up the river to the Causeway site and named the island at the centre of the area after midshipman Francois Heirisson. Later still, Captain Stirling, in exploring the river in 1827, had difficulties in having to have his boats carried across the *Perth Flats*, as they became known, before proceeding upstream.



Willem de Vlamingh's ships and  
black swans entrance to the Swan River  
Coloured engraving (1796), derived from an earlier drawing (now lost)  
from the de Vlamingh expeditions of 1696 - 1697.



Captain James Stirling

## EARLY SWAN RIVER BRIDGE CROSSINGS

The decision by the Swan River Colony's first Governor, Captain James Stirling, to locate the townships of Fremantle and Perth on opposite banks of the river immediately caused the need for a bridge to facilitate road transport between the two settlements. The obvious place for a bridge was at North Fremantle, but the Colony did not have the technical and financial resources to build at that location for at least 20 Years. Travellers by road between Fremantle and Perth had to use a track on the south bank of the river to the location where Canning Bridge now stands, make a slow and expensive ferry crossing, continue overland to a location near the east end of the existing Causeway bridges, then traverse a series of mud flats to firm ground at East Perth.

### FIRST CAUSEWAY CROSSING 1843

In February 1831 the colony's Civil Engineer, Henry Reveley, was requested by Governor Stirling to "remove the inconvenience of the Flats" to allow boats to travel upstream. Various attempts were made to dig canals through the flats but it was not until 1840 that a successful canal was completed. Subsequently over the period 1840 to 1843 two wooden bridges and earth embankments were constructed over the canal and mud flats to finally complete the crossing of the Swan River at the Causeway location. The total cost was £1,814/10/-. To help pay for the project the original Causeway was a toll road, with charges ranging from 1d (for a person on foot) to 6d (for a horse drawn cart).



One of the bridges of the first Causeway crossing 1843

### SECOND CAUSEWAY CROSSING 1867

In June 1862 major flooding occurred in the area. The first causeway bridges and embankments were almost destroyed after being submerged under more than two metres of water. The new causeway, which was the responsibility of Richard Roach Jewell, Superintendent of Public Works, was built by convict labour. The original one was rehabilitated, extended, and raised by about one metre. The structure, consisting of three timber bridges, had a combined length of 490 m (1600 feet). The official opening of the newly re-furbished causeway on 12 November 1867 was a memorable occasion. According to the press of the day Governor Hampton drove "through avenues of flags and bunting from Government House to the site. Military corps, a band, and a great crowd were present for the opening". The Governor declared the new causeway open with the words

*"I, John Stephen Hampton, Governor in and over the Colony of Western Australia,  
do hereby declare this Perth Bridge and Causeway open for traffic".*

The proceedings were then disrupted when a young man on horseback raced across the newly opened bridge, after announcing to the crowd :

*"I, John Stephen Maley, do declare that I will be the first  
to cross this Perth Bridge and Causeway".*



One of the bridges of the second Causeway crossing 1867

### THIRD CAUSEWAY CROSSING 1952

The 1867 bridges were modified several times during their life. In 1899 they were widened by the addition of a footpath, widened again and strengthened in 1904 and widened again in 1933. Serious planning to replace the bridges took place during the 1930s. In this period considerable work was done to dredge the river to provide much wider navigation channels.

In 1944 Main Roads Bridge Engineer E.W.C. Godfrey submitted a proposal to Commissioner J.W. Young to build two new bridges upstream of the existing ones with a 19 metre wide deck. The combined length of the two bridges was to be 341 metres. Unlike the previous timber bridges the new ones were of composite steel and concrete construction. This involved tying the steel support beams to the concrete deck with steel stirrups welded to the top flanges of the beams. Post war shortages of money and materials delayed commencement of construction until 1947 and progress on site such that the bridges were not completed until 1952. As well as the local supplier, Swan Cement, supplies of cement came from England, Sweden, Poland and Japan. The late delivery of steel was a major cause of delay to the project. Steel ordered from BHP for the support beams in August 1948 was not delivered until the end of 1950. The construction workforce consisted mainly of Main Roads employees, supervised by Main Roads engineers.



Heirison Island 1935, showing dredging work underway



Driving timber piles to support piers



Completed piers of eastern bridge



Deck formwork and reinforcing steel being placed

### EMINENT PERSONS ASSOCIATED WITH THE 1952 BRIDGES

Sir Ross McLarty	Premier of Western Australia	1947 - 1953
Mr Jim Young	Commissioner Main Roads WA	1941 - 1953
Mr Digby Leach	Commissioner Main Roads WA	1953 - 1964
Mr Ernie Godfrey	Bridge Engineer Main Roads WA	1928 - 1957



Sir Ross McLarty



Mr J.W. Young



Mr J.D. Leach



Mr E.W.C. Godfrey



Premier The Hon. Ross McLarty cutting a ribbon  
at the official opening on 19 September 1952



Official opening plaque on Eastern Causeway Bridge



Eastern Causeway Bridge 2012

In August 2012 Engineering Heritage Australia (Engineers Australia's peak heritage body) awarded the Perth Causeway Bridges an Engineering Heritage Marker. The marker was presented to Main Roads WA at a ceremony on 19 September 2012, the 60th anniversary of the official opening of the bridges.

